

NOZHKIN, M.I., inzh.

New machinery for row crops. Zemel'delie 23 no. 2:28-36 F '61.
(Agricultural machinery) (MIRA 14:2)

NOZHKIN, M.I., inzh.

New machinery for controlling and erosion. *Zemledelie* 23 no.3:71-75
Mr. '61. (MIRA 14:3)

(Wind erosion)

NOZHKIN, M.I., inzh.

New fertilizer spreaders. Zemledelie 23 no.6:46-52 Je '61.

(MIRA 14:6)

(Fertilizer spreaders)

NOZHKIN, M.I.; VLASOV, I.N.; PAVLOVA, N.I.

In the Scientific and Technical Council of the All-Union Farm
Machinery Association. Mekh. i elek. sots. sel'khoz. 20 no.1:
62-63 '62. (MIRA 15:2)
(Agricultural machinery)

NOZHKIN, M.I., inzh.

New tractors for agriculture. Zemledelie 24 no.6:65-69 Je '62.
(MIRA 15:11)
(Tractors)

NOZHKIN, M. I., inzh.

New machines; grain loaders, drill loaders, and fertilizer
distributors. Zemledelie 24 no.9:24-27 S '62.
(MIRA 15:10)

(Agricultural machinery)

NOZHKIN, M.I., inzh.

New machines. Zemledelie 25 no.7:64-66 J1 '63. (MIRA 16:9)
(Agricultural machinery)

NOZHKINA, Aleksandra Antonovna; STRONGIN, V.L., red.; PYATAKOVA, N.D.,
tekhn. red.

[Problem for teaching practice on accounting in state farms]
Zadacha dlia uchebnoi praktiki po bukhgalterskomu uchetu v sov-
khozakh. Moskva, Gosstatizdat TsSU SSSR, 1961. 45 p.

(MIRA 15:3)

(State farms--Accounting--Study and teaching)

NOZHKINA, I. A.

5(3), 5(4)

PLATE 1 BOOK REPRODUCTION OCT/22

Академия наук СССР, Институт математики

study, t. 12 (Transactions of the Petroleum Institute, USSR. Academy of Sciences, Vol. 12) Moscow, Izdato AN SSSR, 1958. 395 p. Extracts allig inserted. 2,700 copies printed.

Ed.: S. A. Sergiyenko, Professor; Ed. of Publishing House: K. G. Mykosenko; Tech. Ed.: V. V. Golubova.

REMARK: The book is intended for scientists, engineers, and technicians in the petroleum industry.

REFERENCES. This collection of articles describes the results of studies on the chemistry and geology of petroleum and gas conducted in the Laboratory of Petroleum Petrology and Geochemistry of the Academy of Sciences, USSR, in 1966 and 1967. A series of papers, including the following, on the chemistry of petroleum have been included in the collection of scientific papers of investigations published by the associates of the Institute in 1966 and 1967 and a list of dissertations for the Doctor's and Candidate's degrees presented in 1966 and 1967 at symposiums of the Academic Council of the Petroleum Institute, Academy of Sciences, USSR, are given.

Dr. D. Zhukova, Z. V. Kuznetsova, I. A. Maslov, and V. F. Shchegoleva. The Change in the Activity of Sulfate Ion in the Chromatographic Separation of Hydrocarbons

2

Solov'eva, O. D., M. N. Rusakov, Ye. G. Pokrovskaya, and N. A. Shklyarev.
Study of the Absorption Spectra of Some Cyclohexyl and Cyclopentyl Benzoate
Derivatives in the Near Ultraviolet Region
Dard 2/a

5

Marigulashvili, A. R., A. Ya. Sosnyachko, and A. F. Davydov. Investigation of the Composition and Properties of High-Molecular Weight Hydrocarbons and Their Derivatives of Oxyaromatic Petroleum

5

Berglyubskii, S. R., B. E. Davydov, A. D. Litmanovich, and V. A. Shatray.
Some Physicochemical Properties of Petroleum Asphaltenes and Tar Solutions.
Part 1a.

5

Berglyuk, S. A., and Yu. I. Gordash.
 Par Fraction of Nadzhikovo Petroleum. Part 15
 Composition and Properties of the

2

Mergulyan, S. S., and Yu. T. Gordash. Low-Temperature Transformations of High-Molecular Weight Aromatic Hydrocarbons of Nadzhemkovo Petroleum. *Chem. Abstr.* 56:12023, 1957.

5

Is. V. Lebedev. Chemical Nature of Saturated High-Molecular Weight Hydrocarbons of Nonashkino (Devonian) Petroleum. Part 17

Langsdorff, S. R., and A. A. Kibinovskaya. The Chemical Nature of
Iso-Molecular Weight Monocyclic Aromatic Hydrocarbons of Benzobenzos
Terphenyls. *Petroleum*, Part 19

10

Terayama, S. R., J. A. Burklee, and Ye. V. Moldina. Investigation of the Chemical Nature of High-Molecular Weight Condensed Polycyclic Aromatic Compounds of Nonaromatic Petroleum by the Catalytic Hydrogenation Method in the Presence of Raney Ni. Part 20

17

Ushakov, S. A., Ye. V. Rodina, and I. A. Moskina. Hydrogenation of High-Molecular Weight Condensed Dicyclic Aromatic Compounds of Naphthalene in the Presence of a H_2O_2 - H_2O - Al_2O_3 Catalyst under Mild Conditions. Paper 21

1

Margaryenko, S. B., I. A. Moshina, and Ye. V. Mozdrina, Hydrogenation of Tar Isolated from Romashkinskaya Petroleum. Paper 22

1

Ugiyenko, G. R. V. I. Korchagin, P. N. Galich, L. A. Rutan, B. Z. Pyryev, and M. I. Kravchenko. Effect of the Depth of Selective Cracking the Composition and Properties of Heavy Residual Petroleum Fraction.

Prizyubko, B. B., V. I. Korzhagina, P. M. Galich, L. I. Rutman, B. E. Pryor, and M. I. Kravchenko. Effect of the Nature of the Raw Material on Oxidation Time on the Composition and Properties of Oxidized Bitumens. *Stroitel'stvo* 24

2

SERGIYENKO, S.R.; NOZHKINA, I.A.; NOZDRINA, Ye.V.

Study of the chemical nature of high-molecular-weight bicyclic aromatic condensation compounds of Romashkino petroleum by the method of catalytic hydrogenation in the presence of Raney nickel. Article No.20.

Trudy Inst.nefti 12:147-155 '58.

(MIRA 12:3)

(Aromatic compounds) (Hydrogenation) (Catalysis)

SERGIYENKO, S.R.; NOZDRINA, Ye.V.; KOZHKINA, I.A.

Hydrogenation of high-molecular-weight bicyclic aromatic condensation compounds of Romashkino petroleum carried out under mild conditions in the presence of the catalyst $WS_2-NiS-Al_2O_3$. Article No.21. Trudy Inst.nefti 12:156-167 '58. (MIRA 12:3)
(Hydrogenation) (Catalysts) (Hydrocarbon)

SERGIYENKO, S.R.; NOZHKINA, I.A.; NOZDRINA, Ye.V.

Hydrogenation of tars extracted from Romashkino petroleum. Article No.

22. Trudy Inst.nefti 12:168-174 '58.

(MIRA 12:3)

(Hydrogenation) (Tar)

11(4)
 NAME: I. A. NOZHKOV
 Address: 100000, Moscow, Russia
 Date: 08/1975

1. This book is intended for chemists, chemical engineers, and technicians specializing in the chemistry of petroleum.
 2. The book is a collection of papers presented at the Third Scientific Session on the Chemistry of Organic Sulfur- and Nitrogen Compounds Contained in Petroleum and Petroleum Products. The scientific session was held in Ufa, June 2-6, 1971. The book consists of six sections: 1) Synthesis, characterization, and analysis of organic sulfur compounds; 2) Separation and purification of organic sulfur compounds; 3) Properties of organic sulfur compounds; 4) Corrosive properties of organic sulfur compounds by thermal catalysis; 5) Use of organic sulfur compounds in sulfur-containing petroleum and petroleum products; 6) Physicochemical properties of organic sulfur compounds. 115 authors, 5 French, 12 German, and 1 Czech.

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115 authors, 5 French, 12 German, and 1 Czech.

TABLE OF CONTENTS

From the Editorial Staff

Introduction

Card 2/10

Chemistry of Sulfur Organic Compounds (Cont.)

Sergiyenko, S.A., I.A. Nozhkov, Ye. V. Kozlovskaya. Catalytic
 Separation of a Mixture of Organic Sulfur- and Nitrogen Compounds
 Contained in High-Molecular Condensed Aromatic Hydrocarbons
 Petroleum Compounds

85

Shumakov, R.D., R.F. Artyukov. Distribution of the Total Sulfur by
 Straight-Run Fuel Fractions Obtained from Sulfur-Containing
 Petroleum

101

Shumakov, R.D., R.F. Artyukov. Separation of Mixtures of Hydrocarbons
 and Organic Sulfur Compounds by the Chromatography Method in
 Vapor Phase

110

Shumakov, R.D., R.F. Artyukov, R.I. Kuznetsov. Separation of
 Sulfur Compounds and Aromatic Hydrocarbons by the Adsorption
 Chromatography Method

115

Sergiyenko, S.A., I.A. Nozhkov, Ye. V. Kozlovskaya. Catalytic
 Separation of a Mixture of Organic Sulfur- and Nitrogen Compounds
 Contained in High-Molecular Condensed Aromatic Hydrocarbons
 Petroleum Compounds

129

Card 5/10

I. A. NOZHKOV

SERGIYENKO, S.R.; NOZHKINA, I.A.; MAYOROV, L.S.

Character of the sulfur distribution in the high molecular weight
hydrocarbon fraction of Romashkino crudes. Khim.sera i azotorg.sved. sod.
v nefte i nefteprod. 3:173-182 '60. (MIRA 14:6)

1. Institut geologii i razrabotki goryuchikh iskopayemykh AN SSSR.
(Hydrocarbons) (Sulfur)

SERGHENKO, S.R. [Sergiyenko, S.R.]; NOJKINA, I.A. [Nozhkina, I.A.];
MAIOROV, L.S. [Mayorov, L.S.]

Separation of macromolecular compounds of petroleum by the combined
method of molecular distillation and chromatography. *Analele*
chimie 15 no.4:127-135 2-D '60. (EEAI 10:3)
(Macromolecular compounds) (Petroleum)
(Hydrocarbons) (Distillation) (Chromatography)

NOZHKINA, I.A.; BEREZKIN, V.G.

Conference on adsorption and methods of chromatographic
analysis. Neftekhimiia 1 no.4:573-575 J1-Ag '61.

(MIRA 16:11)

NOZHKO, K. G.

"Experience in planning scientific and engineering training of cadres
in the USSR in keeping with the needs of the national economy, culture
and education"

report to be submitted for the United Nations Conference on the
Application of Science and Technology for the Benefit of the Less
Developed Areas - Geneva, Switzerland, 4-20 Feb 63

NOZHKO, V.D.; GIMMEL'FARB, Ye.I.

On the Ulianov State Sugar Beet Farm. Sakh.prom.30 no.6:50-53 Je '56.
(MLRA 9:9)

1.Ul'yanovskiy sveklosovkhov (for Nozhko).2.Khar'kovskiy sakhsveklotrest
(for Gimmel'farb).

(State farms)

L 61366-65

ACCESSION NR: AP5018754

UR/0334/65/000/007/0017/0020
664.72:621.796.5].001.36

AUTHOR: Nozhnitskiy, V. (Engineer)

TITLE: Comparison of technical and economical parameters of grain elevators

SOURCE: Mukomol'no-elevatornaya promyshlennost', no. 7, 1965, 17-20

TOPIC TAGS: grain storage, grain elevator, grain silo, silo

ABSTRACT: A comparison of different types of grain silos is presented. During the past 7 years 6 types of silo bodies have been constructed: with 3.2 x 3.2-m silos (1958); with prestressed concrete 6-m diameter silos (1962); with 3-m diameter silos (1962); with eight-sided silos (1963); with 3.2 x 3.2-m silos made of prefabricated volume elements of ribbed construction. A table comparing the capacities, amount of materials required, amount of different types of labor required, and the cost of seven silo constructions (like those listed above) is presented and a qualitative comparison of three silo types is given. It is concluded that: the 3 x 3-m silos (Fig. 1c on the Enclosure) made of prefabricated volume sections have the advantage of easy construction but are practical only for capacities of < 25 000 tons at locations < 500 km from the factories making

Card 1/4

L 64366-65

ACCESSION NR: AP5018754

2

the sections; the 4 x 4-m silos and 6-m diameter silos (Figs. 1b and 1a on the Enclosure) are cheaper because they are constructed from flat sections, do not require special fabricating techniques, and are made of the same construction materials as the service buildings for the silos; they are most practical for capacities > 25 000 tons (perimeter to volume ratios of both types are the same; i.e., require same amount of materials) regardless of location. Orig. art. has: 3 figures and 2 tables.

ASSOCIATION: Gipronisel'khoz *HW*

SUBMITTED: 00

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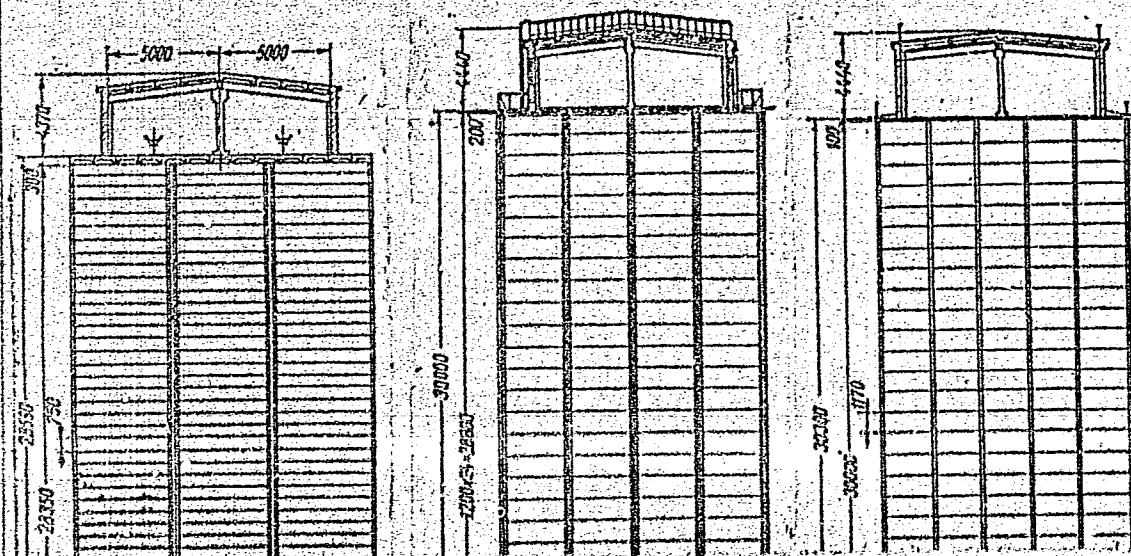
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Card 2/4

L 64366-65

ACCESSION NR: AP5018754

ENCLOSURE: 01



Card 3/4

to card 4/4

L 61366-65

ACCESSION NR: AP5018754

ENCLOSURE: 02

from card 3/4

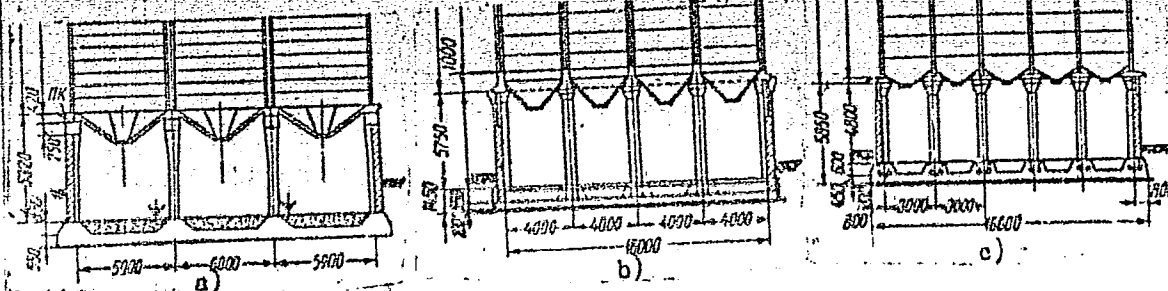


Fig. 1.

- a) Experimental elevator with 6-m diameter silos;
b) with 4 x 4-m silos; c) with 3 x 3-m silos

Card 4/1

ISSERS, F.A., inzh.; NOZHNITSKIY, V.A., inzh.; SEMENOV, V.B., inzh.

Joints for precast reinforced concrete panels of rectangular slabs.
Prom. stroi. 42 no.8:28-31 '65. (MIRA 18:9)

KUROCHKIN, A., inzh.; RYSINA, Ye., inzh.; NOZHNIITSKIY, Y., inzh.

Increasing the durability of walls of the reinforced concrete
frame of elevators. Muk.-elev.prom. 28 no.9:19-22 S '62.

(MIRA 15:10)

1. Gosudarstvennyy proyektnyy institut po proyektirovaniyu
predpriyatiy i sooruzheniy zernovoy i mukomol'noy promyshlennosti.
(Grain elevators)

NOZIC, Salko

Epidemiology of tuberculosis in Yugoslavia from the liberation
to the present time. Tuberkuloza 15 no.3:422-424 JI-D'63.

1. Vojni Institut za tuberkulozu, Beograd. Nacelnik: puk.
prof. dr. M.Tucakovic.

S

NOZIC, Salko, sanitetski potpukovnik dr

Evaluation of tuberculosis in the army. (From 1946 to 1960).
Vojnosanit. pregl. 19 no.5:345-352 My '62.

1. Vojni institut za tuberkulozu u Beogradu, epidemiolosko odeljenje.
(TUBERCULOSIS) (MILITARY MEDICINE)

NOZICKA, Antonin

Development of the Innovators' Movement in the "Zavody pro
vyrobu kulickovych lozisk" [Ball-bearing Factory]. Stroj vyr
10 no.6:306-307 '62.

1. Zavody na valiva loziska a traktory, n.p., Brno-Lisen.

NOZICKA, F.

"Connectivity and the normal of the hypersurface in the Riemannian space from the point of view of affine geometry" p. 17 (Casopis Pro Pestovani Matematiky.
Czechoslovak Mathematical Journal, Vol. 1, No. 1, Sept. 1951, Praha)

SO: Monthly List of East European Accessions, Vol 3 No 3, Library of Congress, Jun 54 Uncl

NOZICKA, FRANTIŠEK

Nožička, František. The theorem on the supremum and theorems equivalent to it. Časopis Pěst. Mat. 76, 121-140 (1951); (Czech)

This is an expository article, proving the equivalence of the following assertions for the real number system: (I) bounded sets have least upper bounds; (II) monotone sequences converge if and only if they are bounded; (III) Cauchy sequences converge; (IV) bounded infinite sets admit points of accumulation. All 12 of the possible implications are painstakingly established.

E. Hewitt.

SO: Mathematical Review, Vol. XIV, No. 5, May 1953

NOZICKA, FRANTIŠEK

On imbeddings of total geodesics in a Riemannian space. I, II. Časopis Pěst. Mat. 78 (1953), 65-72, 215-228. (Czech)

FW

3

La variété à $n-1$ dimensions dans l'espace de Riemann V_n à n dimensions est totalement géodésique quand pour le second tenseur fondamental on a $h_{ab}=0$ ($a, b=1, \dots, n-1$). Le vecteur principal v^α de la variété V_n satisfait à l'équation

$$(h_{\alpha\beta} - \sigma g_{\alpha\beta})v^\beta = 0 \quad (\alpha, \beta=1, \dots, n),$$

où $g_{\alpha\beta}$ est le premier et $h_{\alpha\beta}$ le second tenseur de V_n . On démontre le théorème bien connu: S'il existe dans $V_n \subset E_{n+1}$, où E_{n+1} est l'espace euclidien à $n+1$ dimensions, la variété g_{n-1} à $(n-1)$ dimensions totalement géodésique, alors le vecteur normal de g_{n-1} en chaque point de g_{n-1} a la direction du vecteur principal de la variété V_n en point pris en considération. On généralise les considérations pour les variétés totalement géodésiques à $p < n-1$ dimensions dans l'espace de Riemann $V_n \subset E_{n+1}$. On obtient le résultat: Soit P_0 un point de l'espace V_n et π_0 un p vecteur de V_n en point P_0 . S'il existe une variété $g_p \subset V_n$ à p dimensions, totalement géodésique, qui passe par le point P_0 et contient en point P_0 le p -vecteur π_0 et qui n'est pas le hyperplan à p dimensions dans V_n , alors: 1) g_p est l'unique variété totalement géodésique à p dimensions dans V_n et 2) g_p est située dans l'espace linéaire E_{p+1} à $p+1$ dimensions qui contient le point P_0 , le p -vecteur π_0 en P_0 et aussi le vecteur normal de l'espace V_n en P_0 .

F. Vytšchlo (Praha).

fr
1/1

Nozicka, Frant

V Nozicka, Frant. La courbe et son arc dans l'espace affn.
 Casopis Est Mat 78 407 410 1953. (Czech)
 Même courbe et son arc dans l'espace affine différentiel des courbes d'espace affine qui sont en ordonnées d'un espace affine différentiel. Les courbes sont rigoureusement prouvées et démontrées aussi par exemples bien choisis.
 F. Vytichila (Prague).

CaP/W

geometrie
 (differential)

son

Wozicka, Frant

✓ Notika, Frant. On the problem of the affine normal and the index of a variety of rank h in a space E_n . $1 - 2/14$

1. Soit X_{n-1} une variété de rang h dans un espace E_n . On suppose que $h < n-1$.

2. On définit le tenseur L_{ab} par les équations

3. On définit le tenseur M_a par les équations

4. On définit le tenseur N_a par les équations

5. On définit le tenseur P_a par les équations

6. On définit le tenseur Q_a par les équations

7. On définit le tenseur R_a par les équations

8. On définit le tenseur S_a par les équations

9. On définit le tenseur T_a par les équations

10. On définit le tenseur U_a par les équations

11. On définit le tenseur V_a par les équations

12. On définit le tenseur W_a par les équations

13. On définit le tenseur X_a par les équations

14. On définit le tenseur Y_a par les équations

15. On définit le tenseur Z_a par les équations

16. On définit le tenseur A_a par les équations

17. On définit le tenseur B_a par les équations

18. On définit le tenseur C_a par les équations

19. On définit le tenseur D_a par les équations

20. On définit le tenseur E_a par les équations

21. On définit le tenseur F_a par les équations

22. On définit le tenseur G_a par les équations

23. On définit le tenseur H_a par les équations

24. On définit le tenseur I_a par les équations

25. On définit le tenseur J_a par les équations

26. On définit le tenseur K_a par les équations

27. On définit le tenseur L_a par les équations

28. On définit le tenseur M_a par les équations

29. On définit le tenseur N_a par les équations

30. On définit le tenseur O_a par les équations

31. On définit le tenseur P_a par les équations

32. On définit le tenseur Q_a par les équations

33. On définit le tenseur R_a par les équations

34. On définit le tenseur S_a par les équations

35. On définit le tenseur T_a par les équations

36. On définit le tenseur U_a par les équations

37. On définit le tenseur V_a par les équations

38. On définit le tenseur W_a par les équations

39. On définit le tenseur X_a par les équations

40. On définit le tenseur Y_a par les équations

$$N_j = \begin{pmatrix} M_j \\ u_j \end{pmatrix}, \quad j = 1, \dots, n-h-1,$$

$$(a) \quad n \nabla \mu_j = M_j, \quad j = n-h, \dots, n-1,$$

$$n \nabla \mu_i = \sum_{j=1}^{n-h-1} \lambda_j M_j + u_i, \quad i = 1, \dots, n-h-1,$$

où λ_i, u_i sont les coefficients qui satisfont les équations

$$\nabla \mu_i = \sum_{j=1}^{n-h-1} \lambda_j \nabla \mu_j + u_i, \quad i = 1, \dots, n-h-1.$$

L'auteur prouve le théorème suivant. Soit donnée dans l'espace affine A_n ($n \geq 2$) l'hyper-surface régulière X_{n-1} et soit, pour le rang du tenseur h_{ab} , $1 \leq h < n-1$ dans tous les points considérés. Soient μ^s , $s = 1, \dots, n-h-1$ les solutions linéairement indépendantes des équations

$$(b) \quad \mu^s h_{ab} = 0, \quad b = 1, \dots, n-1.$$

Le $(n-h)$ -vecteur avec les composantes

$$\mu^{(1)} \mu^{(2)} \dots \mu^{(n-h-1)} \mu^{(n-h)}, \quad \mu^{(n-h)} = R_{ab} \mu^a \mu^b,$$

où μ^* est la solution quelconque des équations (a), définit dans chaque point de la variété X_{n-1} la $(n-h)$ -direction qui a les propriétés suivantes: a) Elle ne dépend pas au choix des solutions linéairement indépendantes μ^s , $s = 1, \dots, n-h-1$.

НОЗІСКА ФРОНТ

b) elle ne dépend pas au choix de la solution n^* du système (A); c) elle ne dépend pas au choix du facteur de l . Le $(n-k)$ -vecteur défini par le tenseur covariant affine normale de la variété X_{n-k} .

Les grandeurs B_{α}^{β} , qui satisfont aux équations

$$B_{\alpha}^{\beta} B_{\beta}^{\gamma} = \delta_{\alpha}^{\gamma}, \quad B_{\alpha}^{\beta} n^{\alpha} = 0$$

définissent la connexion

$$\Gamma_{\alpha\beta}^{\gamma} = B_{\alpha}^{\delta} \nabla_{\delta} B_{\beta}^{\gamma}$$

induite dans X_{n-k} par le vecteur afonormal n^* .

L'auteur étudie la correspondance entre la connexion et le vecteur n^* et aussi l'influence du choix du facteur de l , et définit pour le vecteur l , le vecteur afonormal n^* et la connexion invariante.

Pour les hypersurfaces totalement géodétiques, c'est-à-dire pour X_{n-1} , pour lesquelles $h_{\alpha\beta} = 0$, l'auteur définit aussi le vecteur n^* à l'aide des équations

$$(c) \quad n^{\alpha} l_{\alpha} = 0, \\ n^{\alpha} \nabla_{\alpha} l_{\beta} = u_{\beta}, \quad \alpha = 1, \dots, n-1$$

où u_{α} est le vecteur de X_{n-1} , qui satisfait à l'équation $\nabla_{\alpha} l_{\beta} = u_{\beta}$, au chaque point de X_{n-1} .

Si n^* est une solution des équations (c) et X_{n-1} est la hypersurface régulière avec le tenseur $h_{\alpha\beta} = 0$, on a

KOZIOKA, F.

A contribution to the airline industry of the Czech Republic. p. 10.

Source: Czech Republic
VOL. 81, no. 2, May 1950

Czechoslovakia

so. Czech Republic and Slovakia List vol. 81, no. 2, May 1950

NOZICKA, F.

(One special minimum problem in the theory of linear programming. p. 66.
(APLIKACE MATEMATIKY, Vol. 2, no. 2, 1957, Praha, Czechoslovakia.)

SO: MONTHLY List of East European Accessions (CEAL) 10, Vol. 6, no. 12, December 1957. Incl.

NOZICKA, F.

"Geodetic, asymptotic and main lines of a surface from the point of view of
materialpoint mechanics"

Aplikace Matematiky. Praha, Czechoslovakia. Vol. 4, no. 2, 1959

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 7, July 59, Unclass

NOZICKA, F

" Fundamental principles of mechanics and their equivalence."

APLIKACE MATEMATIKY, Praha, Czechoslovakia, Vol. 4, no. 4, 1959

Monthly list of East Europe Accessions (EEAI), LC, Vol. 8, No. 6, Sept 59
Unclas

89084

Z/026/60/005/001/001/005
B112/B202

AUTHOR: Nožička, František, Docent, Doctor

TITLE: A model in the classical two-body problem

PERIODICAL: Aplikace Matematiky, v. 5, no. 1, 1960, 1-29

TEXT: The trajectories of the classical two-body motion are conic sections. In the present paper, the author gives a "graphical" solution of the two-body problem by determining the trajectory of a mass point as projection of the intersection of a cone by a plane. He first treats the case of two mass points M_1 and M_2 with the masses m_1 and m_2 , respectively, and an initial distance of $r_0 \neq 0$. M_1 lies in the origin of a rectangular system of coordinates x, y, z and at the same time at the vertex of a cone of revolution with the z -axis as axis of rotation and the angle of aperture $\pi/2$. The trajectory plane of the mass point M_2 is the x, y plane. The trivial case where the vectors of the initial position and the initial velocity of M_2 have the same direction is excluded. Hence the determinant

Card 1/3

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B112/B202

A model in the classical...

α of these two vectors is different from zero. The trajectory of M_2 is determined in the following way: the two final points of the vector of the initial velocity of M_2 (one of them being the point P_0 of the initial position of M_2) is projected to the cone into the direction of the z-axis and the cone is intersected by the plane passing through the two projection points and through the point S with the coordinates:

$O, O, k = \frac{\gamma^2}{\gamma(m_1+m_2)}$ (γ constant of gravitation). The inverse projection of the intersection to the x,y plane is the desired trajectory of M_2 . The

author proves this theorem by the methods of the classical theory of gravitation (Kepler, Newton). He then regards the case where the mass m_1 is homogeneously distributed over a sphere with the radius R. He determines the boundary line of the two domains in the trajectory plane of M_2 within which the end point of the vector of the initial velocity of M_2 is to lie in order that the trajectory of M_2 hits or passes by the mass

Card 2/3

89084

Z/026/60/005/001/001/005
B112/B202

A model in the classical...

sphere M_1 . This boundary curve is a hyperbola given by the equation:

$$\eta^2 \frac{(R+h)(2R+h)}{2\gamma m_1 R} - \xi^2 \frac{R(R+h)}{2\gamma m_1 h} = 1. \text{ In this case, } h = r_0 - R \text{ and } \xi, \eta \text{ are}$$

rectangular coordinates with P_0 as origin. The author mentions V. Trkal. *Mechanika hmotných bodů a tuhého tělesa*. There are 5 figures.

ASSOCIATION: Matematicko-fyzikální fakulta Karlovy university, Praha
(Division of Mathematics and Physics of Charles University,
Prague)

SUBMITTED: December 24, 1958

Card 3/3

NOZICKA, Frantisek (Praha)

My recollection of professor Milos Kessler. Cas pro
pas mat 87 no.1:111-113 '62.

NOZICKA, Frantisek

Frenet formulas for geodesy in Minkowski mechanics. Chakhosl mat
zhurnal 13 no.2:290-321 Je '63.

1. Matematicko-fysikalni fakulta, Karlova universita, Praha 1,
Malostranske namesti 25.

NOZICKA, Frantisek; VLACH, Milan

"Calculus of variations and its use in physics and technology"
by Paul Funk. Reviewed by Frantisek Nozicka, Milan Vlach
Aplikace mat 9 no.3:233-234 '64.

NOZICKA, Frantisek

Lorentz transformations as a special case of more general correspondences of the Minkowski space. Chekhosl mat zhurnal 14 no.4:609-628 N '64.

1. Center of Numerical Mathematics of the Charles University, Prague 1, Malostranski namesti 25. Submitted on October 17, 1963.

NOZICKA, J.

TECHNOLOGY

periodicals: JETNA MECHANIKA A OPTIKA Vol. 3, no. 10, Oct. 1958

NOZICKA, J. Design of the film engaging winding mechanism in motion-picture cameras. p. 323.

Monthly List of East European Accessions (EEAI) LC Vol. 8, no. 5
May 1959, Unclass.

NOZICKA, J.

Afforestation attempts on the ridges of Hruby Jeseník. p. 57. (Ochrana
Přírody, Vol. 12, No. 2, Mar 1957, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 8, Aug 1957. U_ncl.

CZECHOSLOVAKIA/Forestry - Forest Plants.

K-5

Abs Jour : Ref Zhur - Biol., No 2, 1958, 5938

Author : Nozicka, Josef

Inst : _____

Title : Attempts at the Afforestation of the Summit Region of
Hruby Jeseník [Moravia, Czechoslov.]

Orig Pub : Ochrana přírody, 1957, 12, No 2, 57-59 (Czech).

Abstract : No abstract.

Card 1/1

NOZICKA, J.

AGRICULTURE

PERIODICALS SOBORNIK RADA LESNICTVI VOL. 5, no. 2, Feb. 1959

Nozicka, J. Attempts for natural regeneration of forests and origin of the first forest preserves. p. 249.

Monthly List of East European Accessions (EEAI), LC, Vol. 8, no. 5,
May 1959, Unclass.

NOVICKA, Josef, dr.

Changes in forests and the development of forestry in
Erzgebirge up to the year 1848. Rozpravy mat CSAV 72
no.3:3-113 '62.

1. Facharbeiter des Forschungsinstitut für Forst- und
Jagdwesen in Zbraslav-Strnady bei Prag.

NOZICKA, J.

Purkinje's reminiscences of his youth in the light of historical facts. Cas. lek. česk. 103 no.41:1147-1149 9 0 '64.

1. Vyzkumny ustav lesního hospodářství a myslivosti ve Zbraslavi-Strnadlech.

ERBEN, Josef, GROH, Jindrich, LOMSKY, Radovan; SVAB, Jozef; HEROUT, Vladimir; NOZICKA, Zdenek; KVASNICKA, Jiri; BARTOS, Vladimir; KVASNICKOVA, Eva. Technicka spoluprace :SCHROFLOVA, A.

Primary aldosteronism in adrenal cortex carcinoma. II. Sborn. ved. prac. lek. fak. Karlov. univ. (Hrad. Kral.) 6 no.5: suppl.:601-607 '63

1. I. interni klinika (prednosta: prof. MUDr. F. Cernik); Urologicka klinika (prednosta: doc. MUDr. Jozef Svab); Patologicko-anatomicky ustav (prednosta: DrSc. prof. MUDr. A. Fingerland) Karlova universita v Hradci Kralove.

NOZICKA, Zdenek; MATYS, Zdenek; SILINKOVA-MALKOVA, Eva; PANOS, J.; FELT, V.

Cushing's syndrome in mixed, fascicular hypophyseal adenoma.
Sborn. ved. prac. lek. fak. Karlov. Univ. 8 no.4:489-494 ' 65.

1. Patologicko-anatomicky ustav (prednosta: prof. MUDr. A. Fingerland, DrSc.); III. interni klinika vseob. lekar. Karlovy University, Praha (prednosta: akad. J. Charvat); II. interni klinika detskeho lekarstvi, Praha (prednosta: prof. MUDr. R. Folt. DrSc.) a Vyzkumny ustav endokrinologicky, Praha (prednosta: doc. MUDr. K. Silink).

NOZICKA, Zdenek; KVASNICKA, Jiri

A case of osteomyelofibrosis complicated by thrombophlebitis
of the portal vein. Storn. ved. prac. lek. fak. Karlov. Univ.
8 no.5:629-634 '65

1. Patologicko-anatomicky ustav (prednosta - prof. MUDr.
A. Fingerland, DrSc)a I. interni klinika (prednosta - prof.
MUDr. F. Cernik) v Hradci Kralove.

JANOUSEK, Bretislav; BARTAK, Pavel; CICHACEK, Jan; DADNA, Jaroslav;
DLABALOVA, Hana; KRAUS, Zdenek; NOZICKOVA, Marie; PETRICKA, A.,
Alena; ROZSIVALOVA, Vera; SOLTA, Vladimir.

A contribution to the problems of varicose leg ulcers. Sborn.
ved. prac.lek. fak. Karlov. Univ. 8 no.3:299-304 ' 65.

1. Dermatovenerologicka klinika (prednosta: prof. MUDr.
B. Janousek) Karlovy University v Hradci Kralove.

NOZIK, S. I.

Effect of diphtheria antitoxin in tuberculous infection. Probl.
tuberk., Moskva No. 3, May-June 50. p. 71-2

1. Of the Department of Microbiology, Krasnoyarsk Medical Institute
(Head of Department--Prof. V. D. Shtiben).

GLML 19, 5, Nov., 1950

L 33245-65 EWT(m)/EPF(c)/EPF(n)-2/EWG(m)/EPR Fr-4/Ps-4/Pu-4 DM

ACCESSION NR: AP4012260

S/0089/64/016/001/0016/0020

AUTHOR: Dubovskiy, B. G.; Kamayev, A. V.; Vlady*kov, G. M.; Kuznetsov, F. M.; Nozik, V. Z.; Palamarchuk, Yu. D.; Popov, G. A.; Vavilov, V. V.

TITLE: Interaction of subcritical reactors

SOURCE: Atomnaya energiya, v. 16, no. 1, 1964, 16-20

TOPIC TAGS: subcritical reactor interaction, reactor safety estimation, fissionable material, equivalent reactor dimension, reactor dimension computation

ABSTRACT: The purpose of the present work is to obtain a method for a reliable safety estimation of interacting systems containing fissionable materials. This estimation is used to provide a safety margin for producing, storing, and transporting fissionable materials. The method of equivalent size has been developed by the authors. This method, in essence, is based on the assumption that a set of subcritical assemblies with specific nuclear properties and geometric parameters can be replaced by a nuclear reactor with equivalent geometrical buckling.

Card 1/2

L 33245-65

ACCESSION NR: AP4012260

and the former nuclear characteristics. The device for studying the interaction of subcritical assembly in a three dimensional lattice is shown in Fig. 1(Enclosure). The results of the computation are found to be in good agreement with experimental results, having in all cases a safety margin. "The authors are grateful to V. G. Zagrafov for valuable comments." Orig. art. has: 6 figures and 1 table.

ASSOCIATION: None

SUBMITTED: 17Nov62

ENCL: 001

SUB CODE: NP

NR REF SOV:002

OTHER: 002

Card 2/3

L 23702-66 EWT(m)/EPF(n)-2/ENP(t)/EWA(h) IJP(c) JD/WW/JG

ACC NR: AT6006753

SOURCE CODE: UR/3158/65/000/010/0001/0008

AUTHOR: Liforov, V. G.; Nikolayev, M. N.; Nozik, V. Z.; Parfenov, V. A.; Semenov, V. A.; Turchin, V. F.

ORG: Physics and Power Institute, State Committee on the Use of Atomic Energy, SSSR (Fiziko-energeticheskiy institut, Gosudarstvennyy komitet po ispol'zovaniyu atomnoy energii SSSR)

TITLE: Investigation of inelastic scattering of slow neutrons from zirconium hydride

SOURCE: Obninsk. Fiziko-energeticheskiy institut. Doklady, no. 10, 1965. Issledovaniye neuprugogo rasseyaniya medlennykh neytronov na gidride tsirkoniya, 1-6

TOPIC TAGS: neutron spectrum, neutron scattering, zirconium ^{compound} ~~oxide~~, hydride, neutron spectrometry, slow neutron, scattering cross section, differential cross sectionABSTRACT: The article describes measurement of the spectra of neutrons scattered by $ZrH_{1.46}$ at an angle of 80° to the incident beam, at temperatures 490C and 20C. The measurements were made with a slow-neutron double spectrometer described by I. I. Bondarenko et al. (Inelastic Scattering of Neutrons in Solids and Liquids, Proceedings of a Symposium, Chalk River, 1962). A mechanical interrupter phase with the IBR reactor was used to produce neutron pulses of 75 μ sec. The spectrometer resolution was 22.5 μ sec/m in the elastic-scattering region. The intensity of the monochromatic neutrons at the same measurements was 5×10^4 neut/sec at energy 25 Mev. The measurements were made for neutrons with initial energy 0.02 Mev, the total re-

Card 1/2

L 23702-66

ACC NR: AT6006753

2

solution of the spectrometer in the elastic-scattering region being 45 $\mu\text{sec/m}$. The plotted differential scattering cross sections were compared with theoretical calculations and found to agree well with the theoretical spectrum. To calculate the doubly-differential scattering cross section of zirconium hydride in the first approximation, the initial data on the spectra of the normal oscillations of the ZrH crystal were taken from the published data based on certain model assumptions. The preliminary results indicate that even rough measurements yield valuable information on the dynamics of the atoms of this substance. More accurate measurements are now under way. The authors thank A. L. Leypunskiy and F. L. Shapiro for interest in the work. Orig. art. has: 5 figures and 3 formulas.

SUB CODE: 20/1 ORIG REF: 003/ OTH REF: 001

SAB DATE: none

Card 2/2 FV

L 39776-66 SWT(am)/SWP(am)/ETI 1JP(0) SW, MD/10-2/10
 ACC NR: AT6012689 SOURCE CODE: UR/3136/65/000/977/0001/0016

AUTHOR: Ishmayev, S. N.; Mostovoy, V. I.; Nozik, V. Z.; Sadikov, I. P.; Chernychov, A. A.; Yudevich, M. S.

ORG: State Committee on the Use of Atomic Energy SSSR, Institute of Atomic Energy im. I. V. Kurchatov, Moscow (Gosudarstvennyy komitet po ispol'zovaniyu atomnoy energii SSSR, Institut atomnoy energii)

TITLE: Study of nonstationary neutron spectra in zirconium hydride

SOURCE: Moscow. Institut atomnoy energii. Doklady, no. 977, 1965. Izucheniye nestatsionarnykh spektrov neytronov v gidride tsirkoniya, 1-16

TOPIC TAGS: neutron spectrum, zirconium compound, hydride, nuclear reactor moderator, scattering cross section

ABSTRACT: This is a continuation of earlier work (Report at the Symposium on Investigations with Pulsed Neutron Sources, Karlsruhe, 1965) dealing with the non-stationary spectra of $ZrH_{1.88}$ systems of different dimensions in a wide range of moderation times. In the present paper the experimental results are compared with calculations based on the use of double-differential cross sections calculated from the spectrum of the normal oscillations of the hydrogen atoms in a zirconium

Card 1/2

L 39776-66

ACC NR: A16012689

lattice with different ratios of the acoustic and optical branches. The time-dependent neutron spectra were measured with an experimental setup described by the authors earlier (Paper P/367 at the 1964 Geneva Conference; Paper at the 1965 Karlsruhe Symposium), with a moderation-time resolution of 3.5 μ sec. The average neutron energy in the investigated moderation-time range ($T > 30 \mu$ sec) turns out to be lower than the energy of the first optical level of the zirconium hydride (0.13 eV), so that the energy exchange between the neutron gas and the medium is due essentially to excitation of the acoustic vibrations of the $ZrH_{1.88}$ lattice. The time necessary to establish the equilibrium spectrum is of the order of 400 μ sec in a "large" system (30 x 28 x 25 cm, $B^2 = 3.8 \times 10^{-2} \text{ cm}^{-2}$). In a "small" system (25 x 25 x 7 cm, $B^2 = 0.2 \text{ cm}^{-2}$) strong diffusion cooling is observed, and the time necessary to establish the equilibrium energy distribution increases with decreasing system dimensions. The nonstationary neutron spectra were calculated in the P-1 approximation using a computer program described by L. V. Mayorov et al. (Paper P/360 at the Third Geneva Conference, 1964). The agreement between the calculations and the experiment is satisfactory. The best agreement between the measured and calculated spectra is obtained if it is assumed that the amplitudes of the acoustic and optical vibrations in $ZrH_{1.88}$ have a ratio 1/360. Orig. art. has: 3 figures, 2 formulas, and 2 tables.

SUB CODE: 18/ SUBM DATE: 00/ ORIG REF: 002/ OTH REF: 009

Card 2/274P

YAMZIN, I.I.; NOZIK, Yu.Z.

Adjustment of single-crystal specimens for neutron diffraction study. *Kristallografiia* 6 no.3:471-473 My-Je '61. (MIRA 14:8)

1. Institut kristallografii AN SSSR.
(Neutron diffraction crystallography)

S/070/61/006/006/004/008
E132/E135

AUTHORS: Nozik, Yu.Z., and Yamzin, I.I.

TITLE: On the structure of manganese ferrite

PERIODICAL: Kristallografiya, v.6, no.6, 1961, 923-924

TEXT: Manganese ferrite of composition $Mn_{1.03}Fe_{1.97}O_4$ has been examined by neutron diffraction at room temperature and above the Curie point. Single crystals were used in the forms of 6 mm diameter spheres, 60 reflexions being obtained from the zones $[110]$ and $[100]$. Intensity measurements were accurate to better than 5%. The oxygen parameter U was found to be 0.260 ± 0.002 and X , the amount of inverseness, determined by the proportion of Mn ions in tetrahedral positions, was found to be 0.80 ± 0.04 . Intensities were corrected for secondary extinction, the angular disorientation of the mosaic being $1.3'$. Tables of observed and calculated intensities are given for nuclear and magnetic contributions to the scattering. The magnetic moments were

$\mu_o = 4.60\mu_B$ ($T = 4.2^\circ K$); $|\mu_{oct}| = |\mu_{tet}| = 3.18\mu_B$ ($T = 296^\circ K$).

Card 1/2

On the structure of manganese ferrite

S/070/61/006/006/004/008
E132/E135

The disagreement coefficient was 6.0%. Acknowledgment is expressed to Academician N.V. Belov for advice. There are 1 table and 5 references; 1 Soviet-bloc, 1 Russian translation from non-Soviet publication and 3 non-Soviet. The English language references read as follows:

- Ref.1: J. Hastings, L. Corliss, Phys. Rev., Vol.104, 328, 1956.
Ref.3: Hamilton. Acta crystallogr., Vol.10, 629, 1957.
Ref.4: Hamilton, Phys. Rev., Vol.110, 1050, 1958.
Ref.5: H. Lipson and W. Cochran. Determination of Crystal Structures, 1953. Russian translation, Moscow, 1956. (Opredeleniye struktury kristallov. p.86)

ASSOCIATION: Institut kristallografii AN SSSR
(Institute of Crystallography, AS USSR)

SUBMITTED: June 27, 1961

Card 2/2

YAMZIN, I.I.; NOZIK, Yu.Z.; BELOV, N.V., akademik

Neutron diffraction study of the cubic modification of PbF_2 . Dokl.
AN SSSR 138 no.1:110-111 My-Je '61. (MIRA 14:4)

1. Institut kristallografii AN SSSR.
(Lead fluoride)

S/070/62/007/001/006/022
E132/E460

AUTHORS: Yamzin, I.I., Staritsyn, V.Ye., Nozik, Yu.Z.
TITLE: A small-scale neutron diffractometer

PERIODICAL: Kristallografiya, v.7, no.1, 1962, 72-76
TEXT: The mechanical and electrical construction of a small diffractometer (consisting of a table for the crystal specimen and a swinging arm for the counter) is described. It follows the traditional Bragg spectrometer design. The counter arm moving only in the equatorial plane. The two rotations necessary are provided by selsyn motors connected to the work drives through magnetic clutches. A timer controls the rates of rotation. The instrument was tested under typical conditions which were: polycrystalline specimen of Be_2SiO_4 , 10 mm in diameter and 30 mm high, enriched BF_3 counter, followed by cathode follower, pulse amplifier and discriminator, counter, integrator and pen recorder forming one channel and a second channel monitoring the primary beam after the Pb monochromator. The primary beam was formed by Cd Soller slits giving a divergence of $20'$; the Pb monochromating crystal had a mosaic spread of $20'$ and was cut at an angle of 6° to the

A small-scale neutron diffractometer

S/070/62/007/001/006/022
E132/E460

(111) plane. there was a further Cd Soller slit collimator in front of the counter, 100 mm long with an acceptance angle of 20° . The record of the powder trace shows a line half-width of about 20° at $\theta = 15^\circ$. The device was constructed by Laboratoriya struktury kristallov (Laboratory of Crystals Structure) and the konstruktorskiy byuro (Planning office) of the Institute of Crystallography AS USSR. There are 4 figures.

ASSOCIATION: Institut kristallografii AN SSSR
(Institute of Crystallography AS USSR)

SUBMITTED: March 11, 1961

Card 2/2

NOZIK, Yu.Z.; YAMZIN, I.I.

Measurement of the integral intensities of diffraction reflections. Kristallografiia 7 no.1:123-124 Ja-F '62.
(MIRA 15:2)

1. Institut kristallografi AN SSSR.
(Neutrons--Diffraction)

NOZIK, YU. Z.

Dissertation defended for the degree of Candidate of Physicomathematical Sciences at the Institute of Crystallography in 1962:

"Neutronographic Investigation of a System of Manganese Ferrites."

Vest. Akad. Nauk SSSR. No. 4, Moscow, 1963, pages 119-145

NOZIK, Z. S.

USSR/ Engineering - Metal working

Card 1/1 Pub. 103 - 17/22

Authors : Stroyev, I. I., and Nozik, Z. S.

Title : Working of components having large-radius cylindrical surfaces

Periodical : Stan. 1 instr. 6, page 34, June 1955

Abstract : A newly introduced method of working components having large-diameter cylindrical surfaces, is described. The milling of the above mentioned components is performed on a vertical milling machine using high-speed face milling cutters with a diameter of 75-300 mm. Drawings.

Institution :

Submitted :

NOZIK, Z.S.

AUTHOR: NOZIK, Z.S. 121-7-18/26
TITLE: Pneumatic Drilling Machines for Work in Places that are not easily Accessible. (Pnevmaticheskiye drevli dlya raboty v trudnodostupnykh mestakh, Russian)
PERIODICAL: Stanki i Instrument, 1957, Vol 28, Nr 7, pp 36-36 (U.S.S.R.)
ABSTRACT: In an engineering works good results were obtained by 2-head pneumatic drill machines on the occasion of working on openings in not easily accessible places. This drilling machine represents a modernized type of the angle drilling machine model D-2U. Upon the casing of the latter a connecting piece is superimposed and a prolonged spindle is pressed into the driven gear. The projection of this spindle is inserted into the slot of the box of the drive gear, which rotates in the box on 15 balls. The box is fixed by the screw. The drive gear drives the gear that rotates together with the pin which had been pressed in. The pin possesses a seat for the tool, which must have a specially formed knife handle. The tool is fixed by means of a press stud. The angle casing is joined to the connecting piece by a thread and the check-nut.

Card 1/2

NOZIK Z.S.

121-4-27/32

AUTHOR: Nozik, Z.S.

TITLE: A New Design of a Counterboring Tool (Novaya konstruktsiya zenkera)

PERIODICAL: Stanki i Instrument, 1958, No.4, p. 40 (USSR).

ABSTRACT: In a counterboring tool with separate tool bits, these can be rapidly interchanged.

There is 1 figure.

AVAILABLE: Library of Congress

Card 1/1 1. Tools-Design 2. Counterbores-Interchangeability

NOZ, A
AUTHORS: Nozik, Z.S., and Stroyev, I.N.

117-58-7-4/25

TITLE: Lapping Machine (Pritirochnyy stanok)

PERIODICAL: Mashinostroitel', 1958, Nr 7, pp 15-16 (USSR)

ABSTRACT: The described machine is a special semi-automatic lapping machine for flat surfaces of parts like valves or faucet bodies. As can be seen in the photograph (Figure 1), the 8 holding devices are provided with weights pressing the work against the lapping disc. The disc rotates at 6 rpm and simultaneous 54 vacillating movements per minute assuring good lapping quality at a production rate of 80 parts per hour. There is 1 photo and 1 diagram.

1. Lapping machines—Characteristics

Card 1/1

AUTHOR: ~~Nozik, Z.S.~~

SOV/121-58-8-20/29

TITLE: The Marking of Components by means of a Hydro-Pneumatic Marker (Kleymeniye detaley pri pomoshchi pnevmogidravlicheskoy skoby)

PERIODICAL: Stanki i Instrument, 1958, Nr 8, p 38

ABSTRACT: A horseshoe marking frame mounted on a bench is described in which the marking punch is operated at 25 strokes per minute by high pressure oil driven by compressed air from the shop distribution system. A valve controlled pedal actuated hydro-pneumatic transformer produces a high-pressure oil impulse for each marking stroke.

There are 2 figures.

Card 1/1

AUTHOR: Nozik, Z.S., Engineer

SOV-117-58-8-20/28

TITLE: The Fast Preparation of Designs for Tool Equipment (Uskorennoye izgotovleniye chertezhey na instrumental'nuyu osnastku)

PERIODICAL: Mashinostroitel', 1958, Nr 8, pp 39-40 (USSR)

ABSTRACT: In many cases existing tools must be changed in a single minor detail. For this purpose it is necessary to make a complete drawing of the tool. It is recommended in the article to re-produce the existing designs typographically and change only the parts which must be changed. This saves much time. The copying of the designs is also easier.

1. Machine tools - Design

Card 1/1

NOZIK, Z.S.

Modernizing bench vises. Stan. 1 instr. 29 no.3:38-39 Mr '58.
(MIRA 12:1)

(Vises)

NOZIK, Z.S.

Using oil hydraulic brackets for marking workpieces. Stan. 1
instr. 29 no. 8:38 4g '58. (MIRA 11:8)
(Marking devices)

NOZIK, Z.S., inzh.

Measuring devices with dials. Mashinostroitel' no.4:35-36
Ap '60. (MIRA 13:6)

(Gauges)

NOZIK, Z. S.

Indicating gauge with enlarged rod travel. Mashinostroitel' no.9:27
S '60. (MIRA 13:9)

(Gauges)

NOZIK, Z.S.; ROZUVAYEVA, M.M.

Manufacturing knurls. Stan.1 instr. 31 no.2:44 F '60.
(MIRA 13:5)

(Machine-shop practice)

NOZIK, Z.S.; LARIONOV, P.I.

Attachment for milling cutters. Mashinostroitel' no.3:23 Mr '61.

(Milling machines—Attachments)

(MIRA 14:3)

NOZIK, Z.S.

Pneumatic belt grinder. Mashinostreitel' no.1:28 Ja '62.

(Grinding machines)

(MIRA 15:1)

NOZIK, Z.S.

Flaring tool for pipes. Mashinostroitel' no.7:33 J1 '62.

(MIRA 15:7)

(Machine-shop practice)

NOZIK, Z.S.

A roller for pipelines. Ratsionalizatsia no.10:22 '62.

NOZIKOV, N.; SERGEYEV, M.A., red.; DIVIN, V.A., mayor, red.;
KONOVALOVA, Ye.K., tekhn. red.

[Russian round-the-world navigators] Russkie krugosvetnye
moreplavatel'i. Pod red. i s vstupitel'noi stat'sei M.A.
Sergeyeva. 2d.2. Moskva, Voen. izd-vo M-va vooruzhennykh
sil SSSR, 1947. 294 p. (MIRA 15:4)
(Voyages around the world)

NOZYNSKI, Wladyslaw, mgr inż.

Testing flaxboard roof plates. Inst tech budow biul
inf no.10:22-24 '62.

1. Zaklad Drewna Budowlanego, Instytut Techniki
Budowlanej, Warszawa.

NOZYNSKI, Zbigniew; ILKOWSKA-UNIEZKA, Wanda

Cystic duct remnant syndrome with lithiasis. Polski tygod. lek.
15 no.9:322-324 29 P '60.

1. Z II Kliniki Chorob Wewnętrznych P.A.M. w Szczecinie; kierownik: prof.dr.med. Edward Gorzkowski oraz z Zakładu radiologii P.A.M.; kierownik: prof.dr.nauk med. Czesław Murczyński.
(CHOLELITHIASIS surg.)

KICZAK, Janina; KOPYLOW, Adrian; NOZYNSKI, Zbigniew

The hemostatic system in chronic pulmonary-cardiac syndrome. Pol.
arch. med. wewnet. 32 no.8:919-929 '62.

1. Z II Kliniki Chorob Wewnętrznych PAM w Szczecinie. Kierownik: prof.
dr med. E. Gorzkowski i z III Kliniki Chorob Wewnętrznych PAM w
Szczecinie. Kierownik: doc. dr med. M. Eisner.
(BLOOD COAGULATION) (PULMONARY HEART DISEASE)

NOZYNSKI, Zbigniew

Effect of glucocorticoids and testosterone on the course of experimental mechanical jaundice in the rabbit. Roczn. pom. akad. med. Swierczewski 11:449-473 '65.

1. Z III Kliniki Chorob Wewnętrznych Pomorskiej Akademii Medycznej (Kierownik: Doc. dr. med. Marek Eisner).

~~24(6)~~ 24.7700

66250

AUTHORS: Gubanov, A.I., Nran'yan, A.A.

SOV/181-1-7-6/21

TITLE: Application of the Method of Equivalent Orbits to the Investigation of Zone Structure in Compounds of Type ~~4 III B~~ ^{III V}

PERIODICAL: Fizika tverdogo tela, 1959, Vol 1, Nr 7, pp 1044-1052 (USSR)

ABSTRACT: The present paper compares the method of strong coupling with the method of equivalent orbits. After mentioning that in the method of strong coupling the electron is described by Bloch sums, the author proceeds to explain the essence of the other method. It is based on the fact that the orbits of the molecular type (crystal or molecule) are formed by orbits which are localized in various parts of the system. If there are symmetries in the system considered, the localized orbits separate into groups in such a way that all orbits of one group convey the same character of charge distribution in the space, and differ only in position and orientation. These orbits are said to be equivalent. Molecular and equivalent orbits have a unitary transformation (1) in common. This unitary matrix is set up according to G.G. Hall. The authors do not agree with the opinion expressed by Slater and Koster (Ref 10) that the method of equivalent orbits be of no advantage. The authors claim, instead, that it permits a linear combination

Card 1/3

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Application of the Method of Equivalent Orbits to the SOV/181-1-7-6/21
Investigation of Zone Structure in Compounds of Type $AIIIbV$

of the functions of free atoms, that the order of the secular equation becomes lower, etc. They agree with the above-mentioned authors, however, in defining the method of equivalent orbits as an approximation to the general method of strong coupling. In opposition to Hall, the authors believe that the method of equivalent orbits offers the possibility of computing conduction bands. An analytical formula for the dependence of energy on the wave vector is then derived by the method described, and finally, an analytical survey of the results obtained is given. The purpose of the computations made by the authors was that of determining the rules governing the change in the zone structure in transitions from one substance to another in the group of compounds $AIIIbV$ and in transitions from elements of the 4th group to $AIIIbV$. Such a compound was found to exhibit four valency bands and four conduction bands, and it is further stated

Card 2/3

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Application of the Method of Equivalent Orbits to the Investigation of Zone Structure in Compounds of Type A^{III}_B^{IV} SOV/181-1-7-6/21

that in the transition from 4th group elements to A^{III}_B^{IV} compounds within 4-valency bands as well as within the conduction bands an additional forbidden zone appears which does not occur in elements of the 4th group. There are 17 references, 3 of which are Soviet.

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SUBMITTED:

June 26, 1958

Card 3/3

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AUTHOR: Nran'yan, A. A.

TITLE: Calculation of Integrals by the Method of Equivalent Orbits
and Estimation of the Parameters of Valence Bands in
Semiconductors of the Type AIIIBV 1

PERIODICAL: Fizika tverdogo tela, 1960, Vol. 2, No. 3, pp. 474-481

TEXT: In the present paper, the author gives an estimation of the interaction integrals of equivalent orbital functions for compounds of the type AIIIBV and diamond-type crystals. The functions of the equivalent orbits are set up as linear combinations of two opposite sp^3 functions of neighboring atoms. The atomic functions are set up in the same way as in Ref. 1. By means of the integrals obtained the effective masses of three types of holes, the widths of the valence band and of the additional forbidden zones of various compounds of the type concerned are calculated. The rules governing the transition from one compound to another in parameters of the band structure are analyzed. Numerical data

Card 1/3

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Calculation of Integrals by the Method of
Equivalent Orbits and Estimation of the
Parameters of Valence Bands in Semiconductors
of the Type A^{III}B^V

S/181/60/002/03/16/028
B006/B017

are given for the following compounds: AlP, AlAs, AlSb, GaP, ^vGaAs, ^vGaSb, and for Si^v and Ge^v (Tables 1 and 2). An analysis of the data of Table 2 shows the following: On the transition of diamond-type crystals to A^{III}B^V the effective hole mass is increased. In Al compounds with elements of the fifth group, the effective hole mass is reduced in the following order: AlSb - AlP - AlAs. The same order holds for gallium: GaSb - GaP - GaAs. The additional forbidden zone is 3 - 4 eV wide for all compounds of the type A^{III}B^V; $\Delta E_g / \Delta E_1 \approx 0.4 - 0.6$ and $\Delta E_g / \Delta E_2 \approx 0.35 - 0.5$ (the valence band is split up into two bands; the upper one has the width ΔE_1 , the lower one ΔE_2). The additional forbidden zone which was theoretically predicted has not yet been verified experimentally. On the transition from the diamond type to compounds of the type A^{III}B^V the

allowed bands become narrower so that $\frac{\Delta E_1(A^{III}B^V)}{\Delta E_1(A^{IV})} \approx 0.3 - 0.5;$ +

Card 2/3

NRAN'YAN, A.A.

Zone structure of diamond-type crystals. Fiz.tver.tela 2 no.7:
1650-1655 J1 '60. (MIRA 13:8)

1. Fiziko-tekhnicheskij institut AN SSSR, Leningrad.
(Crystals)

NRAN'YAN, A. A.

Cand Phys-Math Sci - (diss) "Calculations of an energetic spectra of electrons in semiconductors AlV and AllI by a method of equivalent orbitals." Leningrad, 1961. 9 pp; (Leningrad Order of Lenin State Univ imeni A. A. Zhdanov); 180 copies; price not given; (KL, 5-61 sup, 173)

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24.7700 (1144, 1385, 1043)

AUTHORS: Mamayev, S., Nran'yan, A. A.

TITLE: Peculiarity of electrical properties of semiconducting solid solutions ($mCdSnAs_2$ - $n(2InAs)$)

PERIODICAL: Akademiya nauk Turkmenskoy SSR. Izvestiya. Seriya fiziko-tekhnicheskikh, khimicheskikh i geologicheskikh nauk, no. 5, 1961, 21-31

TEXT: For the purpose of obtaining substances with continuous variation of properties, the authors studied electric properties of some solid solutions obtained on indium arsenide base. This is one of the first studies in this field. The $CdSnAs_2$ compound was chosen as a second component. The solid solutions of the system $mCdSnAs_2$ - $n(2InAs)$ have a chalcopyrite structure within the concentration range from $n = 0$ to $n = m$ and a specific zinc blende structure at $n > m$. The specimens under investigation were synthesized of spectrally pure Cd, Sn and In components. Arsenic used for the synthesis was produced by a method described in reference 3 (Goryunova, N. A. and others: Method of obtaining high purity arsenic, Zhurnal prikladnoy khimii, no. 6, v. XXIII, 1960) and was then twice sublimated in a vacuum. The compounds $CdSnAs_2$ and $InAs$,

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A006/A101

Peculiarity of electrical properties ...

synthesized from these components, had a concentration of charge carriers at room temperature of $3.1 \times 10^{18} \text{ cm}^{-3}$ and $1.6 \times 10^{17} \text{ cm}^{-3}$ respectively. The electric conductivity and the Hall effect were measured within a wide temperature range for a series of compounds. All the measurements were made by the conventional compensation method on d-c. A 0.05 mm diameter platinum wire was used as an electrode. Measurements below room temperature were made in a vacuum and above it in argon atmosphere. The Hall effect was measured in a constant magnetic field of $H = 6,700$ oersted. Curves were plotted of the electric conductivity σ and the Hall effect R versus the inverse value of absolute temperature for n and p type specimens. When analyzing the results obtained the following problems were studied: the origin of charge carriers; the causes of n and p type conductivity in solid solutions; the causes of an unchanged sign of the Hall constant in the 1 : 4, 1 : 5 and 1 : 9 composition of the p-type contrary to compositions 1 : 99 and 1 : 399; causes of the $R(T)$ function peak in the high-temperature ranges for n and p type specimens. As a result of the investigation, the following conclusions can be drawn: The charge carriers in the specimens are mainly generated by dissociated atoms. Changes in the type of conductivity of the specimens from n to p (beginning approximately from composition 1 : 3 towards higher InAs concentration) are caused by changes in

Card 2/5
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